

Hemchandracharya North Gujarat University, Patan

Bachelor of Vocation

Pharmaceutical Chemistry

Semester III End Term Examination, February 2016

Subject: **Advanced of Organic Chemistry**

PC 311

Time: 2 hrs

Date: 01-02-2016

Maximum Marks: 50

Q.1 Answer any 9 questions. Each question carries 1 mark [9*1=9]

1. Comment: As increase in inductive effect of halogen atom, bond length decreases.
(True/false)
2. An electron releasing group(+I effect) _____ basicity.(increases/decreases)
3. Define Nucleophile
4. Nucleophilic substitutions reactions are generally occur in _____
5. Define: polar protic solvent & polar aprotic solvent.
6. Indicate which one is more nucleophilic among following pair.
 - a) SH^- & OH^-
 - b) CH_3SH & CH_3OH
 - c) F^- , Cl^- , Br^- , I^-
7. 3° Haloalkane will follow _____ mechanism.(SN^1 / SN^2)
8. Define: conjugation with example.
9. Define: electronegativity.
10. Define: Dienophile and Diene

Q.2 Answer any 5 questions. Each question carries 04 marks [5*4=20]

1. Explain neighboring group effect.
2. Explain s-s overlap with examples.
3. Explain addition-elimination reaction with example
4. Write down the reaction of ethylchloride with sodium hydroxide. Which product/s is/are formed? Explain with mechanism.
5. Write a note on resonance effect.
6. Explain factors affecting hyperconjugation.

Q.3 Answer any 4 questions. Each question carries 07 marks [3*7=21]

1. Explain -I & +I effect.
2. Write down difference between SN^1 & SN^2 mechanism.
3. Explain sp^3 hybridization with examples.
4. Write down Woodward and Hoffmann rule for conservation of symmetry.

Best of luck